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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/522,577	01/28/2005	Hirokazu Takahashi	50395-314	8808

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EXAMINER

NGUYEN, CHAU N

ART UNIT	PAPER NUMBER
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2831

DATE MAILED: 12/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/522,577

Applicant(s)

TAKAHASHI ET AL.

Examiner

Chau N. Nguyen

Art Unit

2831

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 January 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>1-28-05</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the feature of the second shield layer being formed by winding a plurality of conductors on the first shield layer spirally in the same winding direction as that of the first shield layer as claimed in claim 4 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing

sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR

1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action.

The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1, line 3, "each of said one or more" is vague and indefinite since "each" implies more than one, therefore "each of said one" is vague.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1 and 3 are rejected under 35 U.S.C. 102(b) as being anticipated by Nohmi et al. (5,463,188).

Nohmi et al. discloses, Figure 1, a shield cable comprising one insulated wires that is covered with a shield conductor and a sheath, said one insulated wire comprising a signal conductor covered with an insulator, said shield conductor consisting of a plurality of shield layers (4 and 5), wherein a first shield layer constituting the innermost layer of said plurality of shield layers consists of a plurality of conductors spirally wound at a pitch of 7 to 13 mm (col. 1, lines 47-49 and lines 61-62, i.e. the winding pitch being from 0.8 to 2.0 time the bending radius which is greater than 2mm and less than 10 mm). Nohmi et al. also discloses the second shield layer having a counter winding direction relative to the first shield layer.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nohmi et al.

Nohmi et al. discloses the invention substantially as claimed except for the shield cable being used for a signal wiring to pass through a hinged portion of an information apparatus. Although not specifically disclosed by Nohmi et al., it would have been obvious to one skilled in the art to use the shielded cable of Nohmi et al. in an information apparatus to pass a signal therethrough a hinged portion since the shielded cable of Nohmi et al. has excellent bending properties and since using a shielded cable in an information apparatus is well-known in the art. In addition, it has been held that a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

8. Claims 2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nohmi et al. in view of Yamamoto et al. (6,677,534).

Nohmi et al. discloses the invention substantially as claimed except for the one or more insulated wires comprising two insulated wires whose diameters are

not more than 0.3 mm and the second shield layer having the same winding direction as that of the first layer.

Yamamoto et al. discloses a shield cable comprising two insulated wires covering by a plurality of shield layers, wherein the diameters of the insulated wires are not more than 0.3 mm (col. 5, lines 21-22) and the second shield layer has the same winding direction as that of the first shield layer (col. 7, lines 40-41). It would have been obvious to one skilled in the art to modify the cable of Nohmi et al. to have two insulated wires whose diameters are not more than 0.3 mm as taught by Yamamoto et al. since parallel pair cables are known for being used for differential signal transmission. It would also have been obvious to one skilled in the art to provide the second shield layer of Nohmi et al. with the same winding direction as that of the first layer to improve the shield strip property and the bending characteristics as taught by Yamamoto et al.

9. Claims 1, 3 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Felkel (4,131,759) in view of Nohmi et al.

Felkel discloses (Figures 1 and 5) a shield cable comprising one insulated wire that is covered with a shield conductor and a sheath, said one insulated wire comprising a signal conductor covered with an insulator, said shield conductor

consisting of a plurality of shield layers (18 and 24), wherein a first shield layer constituting the innermost layer of said plurality of shield layers consists of a plurality of conductors spirally wound. Felkel also discloses the second shield having a winding direction in a counter winding direction relative to that of the first layer (re claim 3) and the scroll pitch of the second shield layer being not more than the scroll pitch of the first shield layer (re claim 5).

Felkel does not disclose the first shield layer having a winding pitch of 7 to 13 mm (re claim 1). Nohmi et al. discloses a shield cable comprising a plurality of shield layers, wherein the first shield layer having a winding pitch of 7 to 13 mm. It would have been obvious to one skilled in the art to provide the first shield layer of Felkel with a winding pitch of 7 to 13 mm to improve the bending characteristics of the cable as taught by Nohmi et al.

10. Claims 6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nohmi et al. in view of Sass (4,552,989).

Nohmi et al. discloses the invention substantially as claimed except for a plurality of said shield cables being bundled together as a wiring component which has a connecting terminal portion provided at least at one end and is used for a signal wiring to pass through a hinged portion of an information apparatus. Sass

discloses a wiring component comprising a plurality of shield cables. It would have been obvious to one skilled in the art to provide a plurality of shield cables of Nohmi et al. to form a wiring component as taught by Sass to provide a multi-core shield cable for multiple transmission purpose. It would have been obvious to one skilled in the art to use the modified multi-core shield cable of Nohmi et al. in an information apparatus to pass a signal therethrough a hinged portion since the shielded cable of Nohmi et al. has excellent bending properties and since using a shielded cable in an information apparatus is well-known in the art. In addition, it has been held that a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. It would have been obvious to one skilled in the art to provide a connecting terminal portion at least at one end of the modified cable of Nohmi et al. to prepare for an electrical connection to a connector since a cable having a connecting terminal portion at an end is well-known in the art.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chau N. Nguyen whose telephone number is 571-272-1980. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard can be reached on 571-272-2800 ext 31. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Chau N Nguyen
Primary Examiner
Art Unit 2831